August 2001

Norway

Norway is a major non-OPEC source of oil and was the world's third largest net oil exporter in 2000. Norwegian natural gas exports to Europe are expected to rise quickly in coming years.

Note: Information contained in this report is the best available as of August 2001 and is subject to change.

BACKGROUND

On March 17, 2000, Jens Stoltenberg was sworn in as Norway's prime minister in the wake of an energy and environment controversy that prompted the preceding prime minister's resignation. Former Prime Minister Kjell Magne Bondevik stepped down after losing a parliamentary vote of confidence over his attempt to prevent the construction of two natural gas-fired power plants. (Norway is now 99% reliant on hydropower for domestic electricity generation.) Plans to construct the plants have gone forward. Stoltenberg's Labor Government has been characterized by a willingness to privatize that has resulted in the largest sell-off of state assets in Norway's history; mostly in the telecommunications, banking, and petroleum sectors.

Norway's economy is characterized by substantial oil and natural gas revenues, growing government expenditure, a tight labor market, and closer linkage to international oil and gas prices than to the OECD business cycle. Norway is the third largest oil exporter in the world, and the recent period (since mid-1999) of high oil prices have made for government budget and current account surpluses and rising disposable income. Norway's 2000 current account surplus, at about 14% of GDP, was one of the highest surpluses ever recorded by an OECD country. However, high energy costs and rapid economic growth also have contributed to rising consumer prices, with the May 2001 year on year

consumer price index rising 4.3%. The country has a small industrial base apart from its oil and gas, shipping, and fishing industries, and its mainland (i.e. excluding oil and natural gas) economy grew by just 0.5% in the first quarter of 2001, year on year. Manufacturing activity fell 3% in 2000. Norway, therefore, is concerned about its economic welfare once its oil runs out, as is predicted for the first half of the 21st century. Norway makes annual contributions to its Petroleum Fund, a financial safety net for the time when oil revenues decline (and a means of reducing the inflationary impact of oil revenues). The government was able to pay a quarterly record Norwegian krone (Nkr) 45.50 billion (about $5 billion) into the Petroleum Fund at the end of March 2001, for a total of Nkr424.9 billion. However, in March 2001, the government also announced that it would begin to spend more oil revenue in 2002, to be phased in slowly. If this change is implemented, the central government's non-oil deficit would rise from 2% of mainland GDP in 2001 to 5.5% by 2010, increasing mainland GDP by 0.4% annually.

Norway is part of the European Economic Area (EEA), but Norwegians have voted in two referenda against joining the European Union (EU). Foreign Minister Thorbjorn Jagland announced in April 2001, that Norway will have to wait until at least 2004/2005 (not until after the next parliament is elected) to apply for EU membership. Norway has a history of state control over major industry, but this is beginning to change. Norway's reliance on oil revenues in the past resulted in a government preference for keeping Norwegian businesses under Norwegian control.

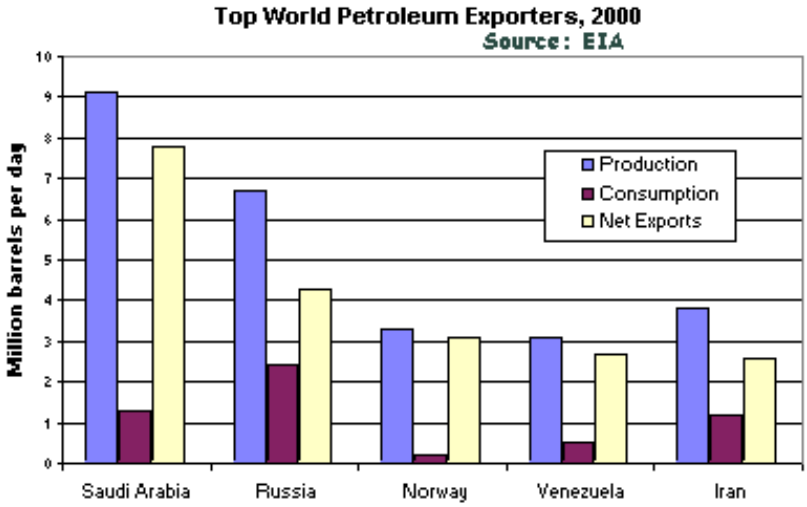
North Sea Oil and Gas

North Sea oil and gas were first discovered in the 1960s. The North Sea did not emerge immediately as a key non-OPEC oil producing area. North Sea production grew as major discoveries continued throughout the 1980s and into the 1990s. Although the region is a relatively high cost producer (breakeven is about $12-$14 per barrel, vs. $3-$4 per barrel in Iran, for example), its political stability and proximity to major European consumer markets have allowed it to play a major role in world oil and gas markets.

Many of the world's major crude oil prices are linked to the price of the North Sea's Brent crude oil. (Brent crude is a blend of North Sea crude oils and does not come exclusively from the Brent field.) Because Brent crude is traded on the International Petroleum Exchange in London, fluctuations in the market are reflected in the price of Brent. Therefore, all other crude oils linked to Brent can be priced according to the latest market conditions. Brent production is forecast to fall precipitously from its current 450,000 bbl/d by 2005, but discussions are reported to be underway on building a pipeline spur from the Statfjord system to the Shell-run Brent pipeline to Sullom Voe. The increased throughput would support trade in the increasingly dated Brent price marker, extending its life as a price marker and reducing volatility in the 15-day Brent forward market, where liquidity has fallen to about 10 cargoes per delivery month compared with 300-400 deals per month in the early 1990s.

The late 1997-1998 oil price collapse had an adverse effect on North Sea production. In 1997 and 1998, North Sea oil production remained stable, whereas previous years had shown increases of 400,000 bbl/d. The 1999-2000 oil price increase had the opposite effect: North Sea oil and gas production reached new heights in 2000, with oil production exceeding 6 million barrels per day (bbl/d) for the first time. However, the area is considered to be increasingly "mature," with few additional large discoveries likely to be made. There were fewer exploration and appraisal wells drilled in the North Sea in 2000 than in any year since the early 1970s. Only a few frontier areas hold the possibility of further discoveries of large oil and gas fields. Of 130 known deposits of oil and gas on the Norwegian continental shelf, about 40 are estimated to be economically viable for development in the next decade. Some predict that the North Sea will reach peak production of about 7 million bbl/d in the next two or three years, although technology developments could delay this. Because the region is believed to be nearing its peak production, in both of the major North Sea producing nations, Norway and the United Kingdom (UK), government and industry are taking steps to restructure their oil and gas sectors to make them more internationally competitive.

OIL



Norway has proven oil reserves of 9.4 billion barrels. In 2000, Norway was the world's third largest oil exporter. Norway consumes very little of the oil it produces, and its oil exports are the country's greatest source of revenue. Norway's oil reserves are located exclusively offshore and mostly in the North Sea, with smaller deposits in the Norwegian Sea. The Barents Sea is being explored. Oil production is expected to increase in 2001 by 130,000 bbl/d over 2000 production of 3.3 million bbl/d.

Norway cooperated with OPEC to some extent in 1999 and the first half of 2000. For example, after OPEC's March 2000 decision to increase oil production, Norway followed suit and decided to increase its production by over 3% for the second quarter of 2000, releasing an additional 100,000 bbl/d into world oil markets. However, in July 2001, the Norwegian Oil and Energy Minister Olav Akselsen announced that Norway has no immediate plans to cut oil production following OPEC's announcement the previous day that it would cut its production quotas by a total of 1 million bbl/d in an effort to stabilize falling prices.

In early May 2000, a six-day strike resulted in the suspension of about 1 million bbl/d in tanker loadings. Although oil company employees were not involved directly in the strike, tankers were unable to berth at key oil terminals because tugboat operators were participating in the strike. Oil workers struck in June 2000 for two weeks, halting production of about 275,000 bbl/d. Direct government intervention ended the strike.

Oil Sector Restructuring

The Norwegian oil sector has undergone massive restructuring during the past two years. Norway's oil sector had been characterized by extensive public ownership. Its largest oil company, Statoil, was 100% state-owned, while Norsk Hydro, the second largest oil company, was majority state-owned. The only completely privately-held company was Saga Petroleum. In addition, state-owned Statoil managed another entity even larger than itself, the State Direct Financial Interest (SDFI), which represented the state's holdings in 150 offshore oil and natural gas fields and about 40% of total production.

In late 1999, Norsk Hydro completed its acquisition of Saga, reducing its public ownership, originally 51%, to less than 50%. Norsk Hydro plans to sell many of Saga's assets, including those in the British North Sea. In April 2001, the Norwegian parliament approved plans to sell between 10% and 25% of Statoil to private investors and to sell 15% of the SDFI to Statoil prior to Statoil's listing on the New York and Oslo stock exchanges. Norsk Hydro and perhaps other Norwegian North Sea operators would be sold another 6.5% of the SDFI. The remainder of the SDFI (78.5%) is being reorganized into a new state company called Petoro. Petoro will be the world's fifth largest oil and gas firm, with estimated production of 1.4 million bbl/d of oil. Statoil completed its purchase of 15% of the SDFI in May 2001 for $4.24 billion, and on June 18, 2001, Norway sold 17.5% of its holding in Statoil in an initial public offering for $2.9 billion. These changes should introduce more efficiency into the system, as Statoil was uncompensated for managing the SDFI, and raise more capital for Statoil in order for it to compete globally as the company explores regions such as offshore west Africa and Venezuela. Statoil achieved a record half-year after-tax profit of Nkr10.6 billion for the first half of 2001.

Oil Production

Norway's major Norwegian North Sea production areas include: Ekofisk, Sleipner, Frigg, Statfjord, and Oseberg and Troll. There are also five fields producing in the Norwegian Sea. (The 62nd line of latitude separates the North Sea and the Norwegian Sea.)

Norwegian oil investment in 2001 is expected to be about $5.3 billion in 2001, a drop from the $6.2 billion invested in 2000. Oil investment peaked in 1998. This reflects expectations that Norway's oil production will remain at current levels until 2004, and then begin a gradual decline. Fields and projects under development include: Tune, Huldra, Gulfaks South phase II, Snorre B, Grane, Ringhorne, Kvitebjorn, Tambar, Glitne, and the Valhall water injection. In July 2001, Idemitsu Kosan of Japan began pumping crude oil from the northern part of Snorre (B), with daily output at 70,000 bbl/d, to increase to 110,000 bbl/d in fiscal 2003. Idemitsu is the operator, but holds just a 9.6% share of total production of the Snorre field, which is expected to reach production of 420,000 bbl/d. The Norwegian Sea has recently yielded two discoveries. In February 2001, Conoco made a discovery near the large Heidrun field that is just five miles from the Heidrun platform. In July 2001, Statoil made a discovery 6 miles north of the Kristin oil shelf. The North Sea Round 2000 license awards were held in March 2001. In all, 11 companies received offers from the Oil and Energy Ministry to explore for and produce petroleum from 15 blocks. The awards were noteworthy for the small amount allocated to the SDFI, awards to a downstream company for the first time (Aker Maritime of Norway), the relatively high participation of foreign firms, and the first operatorship for Enterprise Oil, which was awarded shares of 10 blocks. Other awards went to Statoil, Norsk Hydro, Phillips, Chevron, ExxonMobil, Agip of Italy, Fortum of Finland, and RWE-DEA of Germany.

Ekofisk was the first North Sea oil field to be discovered, in the late 1960s, and developed, with production beginning in 1971. Since 1975, oil has been piped from Ekofisk to the UK (Teesside, England). There are currently 29 platforms installed in the area, some of which are in the British North Sea. The most recent phase of development began in 1994, when the Phillips group (the U.S. company that leads the Ekofisk operating consortium, which includes TotalFinaElf, Norsk Agip, Norsk Hydro, and Statoil) installed two new platforms at "Ekofisk II". Ekofisk II came onstream in August 1998. The Phillips license runs through 2028. Phillips plans to remove 14 of the 29 Ekofisk platforms between 2003 and 2018, at an estimated cost of $1 billion (NKr 8 billion). About 10% of the removal cost will be paid by Phillips, 72% by the Norwegian government, and the remainder will be paid by the other members of the consortium. In late October 1999, Phillips submitted a proposal to the Norwegian government for removal of the platforms. Phillips plans to bring the steel structures ashore for recycling, to leave a concrete tank and barrier wall in place, and also to leave about 150 miles of pipelines buried. A final decision is not expected from the Norwegian parliament (the Storting) until the latter half of 2001. There is a pipeline from Ekofisk to Teesside on the English coast. The Valhall field's production has dropped below 90,000 bbl/d, to 83,000 bbl/d. The Yme field is scheduled to cease production in 2001.

Sleipner West was discovered in 1974, but Sleipner East went into production first, in 1993. Sleipner West is tied back into Sleipner East, and the fields share the same operations organization. Sleipner is mostly important for natural gas production, including liquids and condensate, but the Varg field produces about 19,000 bbl/d crude oil. Varg is scheduled to cease production in 2002.

Frigg is also mostly important as a natural gas producing area, though the Balder and Jotun fields together produce about 200,000 bbl/d. Balder was proven as early as 1967, though production did not commence until 1999. Shuttle tankers are loaded from a production ship tied to subsea-completed walls. Jotun also commenced production in 1999, from a floating production, storage, and offloading vessel (FPSO) that is serviced by shuttle tankers.

The Statfjord area is the largest oil producing area in the North Sea. The Statfjord field itself was discovered by Mobil in 1974. It is the largest oil field in the North Sea, and it extends into the British North Sea. Production began from Statfjord A in 1979, from Statfjord B in 1982, and from Statfjord C in 1985. Production from the Statfjord North and Stafjord East subsea installations are tied back into

Stafjord C. Statoil took over the operations from Mobil in 1987. Three large concrete platforms with storage cells have been installed on Statfjord. The Norwegian share of gas from the field is piped through the Statpipe/Norpipe system to Emden in Germany via Kårstø, north of Stavanger. Britain's 15% share goes by pipeline via the Brent field to Scotland. Statfjord's production has exceeded the most optimistic expectations. Its recoverable reserves have been upgraded several times. Statfjord should continue producing until 2020. The second-largest production in the area is the Snorre field. It was discovered in 1979, and production commenced in 1992 (see above). The third largest field is Gullfaks, which including West and South, produces some 246,000 bbl/d. Gullfaks (including West) has declined by over 50% since its peak in 1995, but Gullfaks South (including Rimfaks and Gullveig) has had increasing production since it came online in 1998, to 67,000 bbl/d in 2001.

The various Oseberg fields (Oseberg, East, South, West) together are the largest oil producing fields in the area, whereas Troll is the largest gas field in the area. Oseberg began production in 1988, and peaked at about 500,000 bbl/d in 1996, and has declined since to about 209,000 bbl/d, far below the capacity of the three platforms there. The surrounding East and South Oseborg fields have come online in 1999 and 2000, respectively, supplementing the declining production at Oseborg with 166,000 bbl/d. There is a pipeline from Oseberg to the Sture terminal on the Norwegian coast. A thin layer of oil underlies the entire Troll field, but it is only sufficiently thick for commercial recovery in the Troll West region. This is where Troll Phase II produces 319,000 bbl/d. There is a pipeline from Troll West to the Mongstad crude oil terminal on the Norwegian coast.

The Norwegian Sea has seen production increase at a higher rate than North Sea production in recent years. Total production for the area is now 764,000 bbl/d. Much of the increase comes from the new Asgard field, which went into production in 1999, and now produces 148,000 bbl/d. Norne's production is also increasing, but Heidrun's production has declined to less than that of the Norne field. Draugen's production has been flat in the past two years, but it is still has the highest production at 209,000 bbl/d. Shuttle tankers are used to take oil from the platforms or production ships, as there is currently not an oil pipeline from the Norwegian Sea.

In March 2000, the Norwegian Oil and Energy Ministry decided to grant tax relief to oil producing fields developed before 1986. Four fields will no longer have to pay an 8% to 16% tax on production. The cuts will be phased in on four additional fields, including Statfjord and Gullfaks.

As Norwegian fields mature, the Norwegian government has become involved in finding new resources for its companies to develop outside the North Sea region. In the summer of 1999, Intsok (Norwegian Oil and Gas Partners), a government-business partnership launched for that purpose, announced its interest in projects in Iran and Nigeria. Intsok also has shown interest in projects in the Gulf of Mexico and offshore Brazil.

NATURAL GAS

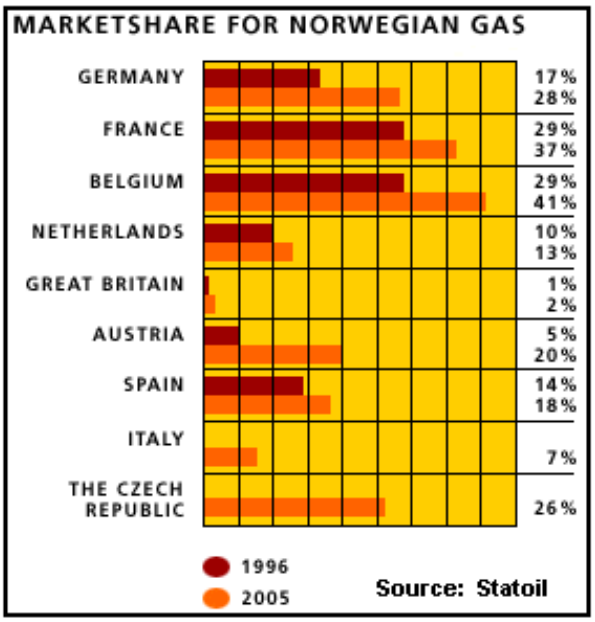
Norway holds 44 trillion cubic feet (Tcf) of natural gas reserves. Norway is not a major natural gas consumer, although its consumption is expected to increase in coming years as natural gas-fired power plants come online. It is estimated that just 16% of Norway's gas reserves have been extracted since output began and that Norway discovered more gas than it produced in 2000. Gas accounts for about 60% of Norway's overall offshore energy reserves and is expected to account for an increasing portion of Norway's energy exports. Norway is already the second-largest natural gas exporter in Europe, after Russia.

Natural Gas Exports

Norway, as a member of the European Economic Area (EEA), is bound to certain EU economic directives, and the EU recently has forced Norway to restructure the way it sells natural gas to other European countries. Prior to June 1, 2001, all Norwegian gas was sold through the Gassforhandlingsutvalget GFU, meaning Gas sales negotiating committee). Although ownership of Norway's gas is held by many different companies and formerly the SDFI, now Petoro, the GFU consisted of just Norsk Hydro and Statoil. The GFU would set a price for all Norwegian gas available

for purchase, instead of letting the various producers compete against each other. The EU claimed that this violated fair trading practices and threatened Statoil and Norsk Hydro with huge fines. The Norwegian government decided to terminate new sales of natural gas to the EEA (most of its market) via the GFU and discard the GFU by the end of the year, assuming parliamentary approval. In the meantime, new legislation on gas sales will be written and companies will be instructed to start work on adapting contracts and other agreements among themselves, so that they can sell their gas on an individual basis. Despite this policy change, the EU is still threatening to take legal action against Statoil and Norsk Hydro because long-term contracts already in place that account for about 20% of western Europe's gas imports were negotiated by means of the GFU and because many of these contracts have destination clauses (prohibition of resale). The EU is demanding that these contracts be renegotiated because the contracts (up to 50 years) preserve "long-term, adverse effects of past and present misbehavior." The EU also is pressuring Norway to adopt the EU Gas Directive of August 2000, which would force Norway to open its North Sea gas pipeline network to third party access. In a step towards compliance with the EU Gas Directive, Norway set up an independent company called Gasco in May 2001, to run the offshore gas pipelines formerly run by Statoil. It is assumed that all producers will now negotiate the cost of transport on an equal footing.

The effects of all these changes are yet to be seen, though the expectation is that the price of Norwegian natural gas will be reduced, at least in the short to medium run. A major constraint for upstream gas companies competing for sales in the newly deregulated market will be limited infrastructure to take the gas out, because various companies share the same pipeline. Norwegian gas arrives in Europe through the following trunklines: the Europipe I and Statpipe/Norpipe systems to Germany; the Zeepipe trunkline to Zeebrugge in Belgium; the NorFra line to Dunkerque in northern France; and the Europipe II line from Kårstø north of Stavanger to Emden. These Norwegian trunklines provide a combined gas transport capacity of 2.7 Tcf per year.



Statoil expects Norway's share of gas deliveries to continental Europe to rise from 14% in 1996 to 20% by 2005. The following companies currently buy Norwegian gas: Ruhrgas, BEB, Meeg, Thyssengas and Verbundnetz Gas (Germany), Gaz de France (France), Gasunie, SEP (the Netherlands), Distrigaz (Belgium), Enagas (Spain), Austria Ferngas, OMV (Austria), Snam (Italy), Energia (Italy), Polish Oil and Gas Company (Poland) and Transgas (Czech Republic). Germany is the largest natural gas market in continental Europe, and about 20% of the gas that Germany currently consumes comes from Norway. Ruhrgas expects Norway to supply 30% of Germany's imports. About half of the gas from the NorFra line transits through France to points in Italy and Spain, while the other half is consumed in France. By 2005, this pipeline is expected to supply one-third of France's total gas consumption.

In July 2001, Stoltenberg and Polish Prime Minister Jerzy Buzak signed a joint declaration for the deliveries of 177 billion cubic feet (Bcf) of natural gas from Norway annually. Existing Polish infrastructure cannot support significant imports from non-Russian sources, so a pipeline across the Baltic through either Sweden or Denmark is being planned. There is a competing plan to import liquefied natural gas (LNG) from Norway to a planned LNG terminal on Poland's Baltic Coast. Norway began piping a relatively small amount of gas through Germany in October 2000, based on an earlier contract signed in May 1999, for the delivery of 17.7 Bcf annually, under an agreement between Germany's Ruhrgas and Verbundnetz Gas and Poland's state-held gas monopoly.

The United Kingdom, the largest natural gas market in Europe, will also soon become an importer of Norwegian gas again. Norway had once supplied up to a quarter of British demand in the 1980s, but this dwindled as the Frigg field that supplied the gas was depleted. The new Vesterled gas pipeline, set to begin operations October 1, 2001, will be one of the ways Norwegian gas may enter the UK. Vesterled will connect the existing Frigg pipeline with the Heimdale platform, which is already connected by pipeline to the Sleipner gasfields, and from there to other areas of the Norwegian North Sea such as the Ormen Lange gasfield that is scheduled to come on stream in 2006. In July 2001, BP announced a 15-year contract to buy 56.5 Bcf natural gas per year from Statoil. However, Statoil has indicated that it would not import large volumes of gas through Vesterled unless Britain changed its pricing system for bringing gas onshore from North Sea fields. Statoil officials have asserted that the UK's system of auctioning entry capacity, or access rights to the national pipeline system, had produced volatile, very high prices.

Natural Gas Production

The Troll field (East and West) contains over half of Norwegian gas reserves. It has a production capacity of 100 million cubic meters (3.5 billion cubic feet, Bcf) per day, and estimated production in 2001 is expected to be 22 billion cubic meters (777 Bcf). The Troll Gas development Phase I in Troll East comprises the Troll A platform, the gas treatment plant at Kollsnes near Bergen, and pipelines linking these two installations. Phase III (under development) will extract gas from Troll West. Troll A is the tallest structure ever moved by humans. Its concrete gravity base structure has been built for a lifetime of 70 years. Block 31/2 was awarded to Shell in Norway's fourth offshore licensing round in 1978, and the terms of the agreement allowed Statoil to take over as operator in 1983. Blocks 31/3, 5 and 6 were awarded to Statoil, Norsk Hydro and Saga Petroleum in 1993. The division of roles on the field has been controversial. Currently, Statoil (and the new Petoro) has about three-quarters of the shares and is the operator, followed by Norsk Hydro, Shell, TotalFinaElf, and Conoco.

Troll is not the only active gas field in Norway's North Sea. Gas sales began in 1977 from Ekofisk and Frigg. Ekofisk supplies Ruhrgas, Gaz de France, Gasunie and Distrigaz. Ekofisk has declined from its peak in the late 1970s and a production spike in the 1990s, though it is still expected to produce 7.1 billion cubic meters (251 Bcf) in 2001. Frigg production is sold to British Gas, though Frigg has declined to the point that production will cease in 2002. Agreements on selling gas from Statfjord, Gullfaks and Heimdal were signed in 1981 and deliveries began in 1985 to Ruhrgas, BEB, Thyssengas, Gaz de France, Gasunie, Distrigaz, Elf and Meeg. Remaining commitments under these deals average six billion cubic meters per year (212 Bcf). Sleipner, East and West, is expected to produce 11.6 billion cubic meters in 2001 (410 Bcf); this gas is currently sold under the Troll gas sales agreements.

The Åsgard field on the Halten Bank in the Norwegian Sea is one of Norway's most important new projects. The field has been developed as a chain of four interconnected projects: development of Åsgard itself, construction of the Åsgard Transport gas trunkline from the field to the Kårstø gas treatment plant north of Stavanger, the Kårstø development project, and the Europipe II gas trunkline from Kårstø to Dornum in northern Germany. Gas production from the floating gas platform began in October 2000, and is expected to be 7 billion cubic meters (247 Bcf) in 2001. Statoil is the operator of the project, which is one of Norway's giant offshore developments, on par with Ekofisk and Troll. Subsea production installations in the field are planned to be the most extensive in world, embracing a total of 51 wells grouped in 17 seabed templates. It will link the Halten Bank area to Norway's gas transport system in the North Sea.

Statoil now is developing the Halten Bank South area of the Norwegian Sea, having taken over as operator in January 2000 (Saga had been the operator). Recoverable reserves of the Halten Bank South fields are estimated at 140 billion cubic meters (almost 5 Tcf) of gas and about 440 million barrels of oil and condensate - on par with Åsgard. The Kristin field of the Halten Bank has already secured sales of up to 31 billion cubic meters (1.1 Tcf) from 2005 to 2016. ExxonMobil made the largest discovery of 2000 in this area, the Bella Donna field, with estimated reserves between 60 and 125 billion cubic meters (2.1-4.4 Tcf).

The huge Ormen Lange field, Norway's second largest gas discovery with estimated reserves of of 14.1 Tcf of natural gas, has its blocks divided into three production licenses, with the unusual characteristic that Statoil/SDFI has only a 30% share of one of the licenses, such that non-Norwegian companies are the majority owners of one of the licenses. Norsk Hydro is the operator in the development phase, and Shell will be the operator in the production phase. Gas production is planned to commence in 2006.

COAL

Norway's coal production occurs on Spitsbergen of the Svalbard Islands, off the northern coast of Norway. This island also has Norway's only coal-fired power plant. There is a proposal to expand mining on Spitsbergen in order to maintain a viable community without government subsidies.

ELECTRICITY

In 1999, 99% of Norway's electricity generation came from its 27 million kilowatts of installed hydroelectric capacity. Norway has one of the highest rates of per-capita consumption of electricity in the world. State-owned Statkraft is Norway's largest producer of hydroelectric power, with 91 hydroplants comprising 30% of Norway's installed capacity. Prime Minister Stoltenberg declared, in January 2001, that "the era of large-scale new hydropower is over" and that several large new hydro projects are to be abandoned, including Beiarn, Bjollaga, and Melfjord. A new hydro plant with greater capacity is being constructed to replace the exisiting one at Tyin.

Norway is also planning to construct three new gas-fired power plants. The government announced in July 2001, that permits to construct gas-fired plants at Kollsnes and Karst in southwest Norway have been upheld after being challenged, and that Norway will be able to comply with its commitments to the Kyoto Protocol, despite the additional carbon emissions. The 2X400 gas-fired combined heat and power plant in Skogn, central Norway is slated to begin construction in 2002. U.S.-based Mirant has bought 40% of five-member industrial consortium IMN, which will build, operate, and own the plant. Norway has had a surplus of hydroelectric power in the past two years, but in drier years it must import electricity. In January 2001, E.On of Germany, Statkraft, and Elsam of Denmark agreed to free capacity on key power cables linking the high tension electricity grids of Scandinavian countries to Germany, including the Skaggerrak cable, the only cable connecting western Denmark and Norway.

ENVIRONMENT

Norway is a proponent of "green power" from renewable sources and has made efforts to make its oil sector as environmentally friendly as possible. Under its Kyoto Protocol commitment, Norway has agreed to limit its carbon emissions to a 1% increase from 1990 levels by the 2008-2012 commitment period. In a dual effort to meet its Kyoto target and to further develop technologies to make oil and gas production less environmentally damaging, Norway has been a leader in alternatives for reducing carbon emissions. As a result of high activity in the oil and gas extraction sectors, Norway is relatively more energy-intensive than most OECD countries, and possesses one of the highest per capita energy consumption levels in the world. Air pollution in Oslo is not as severe as in other major world cities.

Sources for this report include: Economist Intelligence Unit, Financial Times, Hart's European Petroleum Finance Week, International Monetary Fund (IMF), Oil Daily, Norwegian Ministry of Oil and Energy, Petroleum Economist, Platt's Oilgram News, Statoil, The Scotsman, WEFA World Outlook.

COUNTRY OVERVIEW

Head of State: King Harald V
Prime Minister: Jens Stoltenberg (elected March 2000)

Independence: October 26, 1905 (from Sweden)
Population (2000E): 4.48 million
Location/Size: Northern Europe, bordering the North Sea and the North Atlantic Ocean, west of Sweden/123,843 square miles (slightly larger than New Mexico)
Capital City: Oslo
Language: Norwegian (small Lapp- and Finnish-speaking minorities)
Ethnic Groups: Germanic (Nordic, Alpine, Baltic), Lapps (Sami) 20,000
Religions: Evangelical Lutheran 87.8% (state church), other Protestant and Roman Catholic 3.8%, none 3.2%, unknown 5.2%
Defense (8/98): Army, 28,900; Navy, 6,100; Air Force, 6,700 (including 16,500 conscripts)

ECONOMIC OVERVIEW

Finance Minister: Karl Eirik Schjott-Pedersen
Minister of Trade and Industry: Grete Knudsen
Currency: Norwegian Kroner (NKr)
Exchange Rate (8/16/01): 1 US Dollar = 8.87 Kroner
Gross Domestic Product (GDP, 2000E): $151.9 billion
Real GDP Growth Rate (2000E): 3.3% **(2001F):** 2.3%
Inflation Rate (consumer prices, 2000E): 2.3% **(2001F):** 2.0%
Unemployment Rate (2000E): 3.3% **(2001F):** 3.3%
Merchandise Exports (2000E): $56.9 billion
Merchandise Imports (2000E): $32.6 billion
Merchandise Trade Surplus (2000E): $24.2 billion **Major Trading Partners:** Germany, Sweden, Denmark, United States, other EU members
Major Exports: Fuels and other energy products; food, beverages, and tobacco; manufactures, including ships
Major Imports: Machinery and transport equipment, food, beverages, and tobacco

ENERGY PROFILE

Minister of Petroleum and Energy: Olav Akselsen (since March 2000)
Proven Oil Reserves (1/1/01E): 9.4 billion barrels
Oil Production (2000E): 3.3 million barrels per day (bbl/d), of which 3.2 million bbl/d was crude oil
Oil Consumption (2000E): 0.2 million bbl/d
Net Oil Exports (2000E): 3.1 million bbl/d
Crude Oil Refining Capacity (1/1/01E): 305,000 bbl/d
Natural Gas Reserves (1/1/01E): 44 trillion cubic feet (Tcf)
Natural Gas Production (1999E): 1.76 Tcf
Natural Gas Consumption (1999E): 0.16 Tcf
Net Natural Gas Exports (1999E): 1.60 Tcf
Electrical Generation Capacity (1/1/99E): 27.6 gigawatts
Electricity Generation (1999E): 121 billion kilowatthours (bkwh)
Electricity Consumption (1999E): 111 bkwh
Recoverable Coal Reserves (12/31/96E): 7 million short tons (Mmst)
Coal Production (1999E): 0.4 Mmst
Coal Consumption (1999E): 1.7 Mmst
Major Systems: Statfjord, Oseberg, Gullfaks, Ekofisk
Major Companies: BP Amoco, Conoco, ExxonMobil, TotalFinaElf, Norsk Hydro, Phillips, Shell, Statoil, Chevron

ENVIRONMENTAL OVERVIEW

Minister of Environment: Siri Bjerke
Total Energy Consumption (1999E): 1.9 quadrillion Btu* (0.5% of world total energy consumption)
Energy-Related Carbon Emissions (1999E): 11.8 million metric tons of carbon (0.2% of world total carbon emissions)
Per Capita Energy Consumption (1999E): 424.9 million Btu (vs. U.S. value of 355.8 million Btu)

Per Capita Carbon Emissions (1999E): 2.7 metric tons of carbon (vs. U.S. value of 5.5 metric tons of carbon)
Energy Intensity (1999E): 12,139 Btu/$1990 (vs U.S. value of 12,638 Btu/$1990)**
Carbon Intensity (1999E): 0.07 metric tons of carbon/thousand $1990 (vs U.S. value of 0.19 metric tons/thousand $1990)**
Sectoral Share of Energy Consumption (1998E): Industrial (52.1%), Residential (21.7%), Transportation (13.1%), Commercial (13.1%)
Sectoral Share of Carbon Emissions (1998E): Industrial (57.0%), Transportation (37.9%), Residential (2.6%), Commercial (2.5%)
Fuel Share of Energy Consumption (1999E): Oil (23.7%), Natural Gas (8.9%), Coal (2.3%)
Fuel Share of Carbon Emissions (1999E): Oil (67.1%), Natural Gas (23.1%), Coal (9.8%)
Renewable Energy Consumption (1998E): 1,248 trillion Btu* (5% increase from 1997)
Number of People per Motor Vehicle (1998): 2.0 (vs. U.S. value of 1.3)
Status in Climate Change Negotiations: Annex I country under the United Nations Framework Convention on Climate Change (July 9th, 1993). Signatory to the Kyoto Protocol (signed April 29th, 1998- not yet ratified). Under the Protocol, Norway has agreed to a 1% increase from 1990 emissions levels of a basket of greenhouse gases.
Major Environmental Issues: Water pollution; acid rain damaging forests and adversely affecting lakes, threatening fish stocks; air pollution from vehicle emissions.
Major International Environmental Agreements: A party to Conventions on Air Pollution, Air Pollution-Nitrogen Oxides, Air Pollution-Sulphur 85, Air Pollution-Sulphur 94, Air Pollution-Volatile Organic Compounds, Antarctic-Environmental Protocol, Antarctic Treaty, Biodiversity, Climate Change, Desertification, Endangered Species, Environmental Modification, Hazardous Wastes, Law of the Sea, Marine Dumping, Nuclear Test Ban, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands and Whaling. Has signed, but not ratified: Air Pollution-Persistent Organic Pollutants.

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.
**GDP based on EIA International Energy Annual 1999

Links

For more information from EIA on North Sea, please see:
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Links to other U.S. government sites:
CIA World Factbook - Norway
U.S. Department of Energy's Office of Fossil Energy's International section - Norway
U.S. State Department Consular Information Sheet - Norway
U.S. State Department Background Notes - Norway
U.S. Embassy in Oslo

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Norwegian Petroleum Directorate
Ministry of Petroleum and Energy

Statoil
Norsk Hydro
Ministry of the Environment
Statkraft
International Energy Agency Norway 1997 Review
The Washington Times International Supplement on the North Sea
Norwegian Embassy in Washington, D.C.
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File last modified: August 14, 2001

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